# LTC 0485 Series DinionXF Color Cameras

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Invented for life

- 15-bit DSP technology
- XF-dynamic
- Bilinx communication
- NightSense
- Default shutter

The LTC 0485 Series of High Performance 1/3-inch Digital CCD Color Cameras create the best possible image, even under the most difficult light and scene conditions. Based on unique 15-bit digital video processing technology and employing XF-Dynamic, these cameras provide excellent sensitivity with extended dynamic range. By employing the best 1/3–inch CCD available, advanced front end processing, combined with the outstanding Dinion DSP, the cameras achieve an astonishing sensitivity, providing better color images in low light situations and sharper daytime images. Intelligent White balance algorithms, supported by a White Balance Hold function and even full manual white balance, ensure the most accurate color reproduction possible. All Dinion cameras are supplied ready to operate. Simply attach and focus the lens, and connect power to provide optimal pictures under virtually all scene conditions. No tools are required for back focus and power connection. For extra challenging situations where fine tuning or special settings are required, the camera parameters can be individually set using the control buttons on the side of the camera and On-screen Display (OSD). Also, to aid installation, the camera automatically detects the lens type, and using the Lens Wizard ensures accurate (back) focusing for perfectly sharp pictures at all times.

## Functions

**XF-Dynamic**
Extended dynamic range is brought to a new level on the LTC 0485 Series Camera by XF-Dynamic technology. XF-Dynamic automatically processes the highly accurate 15-bit digital signal to optimally capture the detail in both the highlight and lowlight areas of the scene simultaneously, to maximize the information visible in the picture.

**Bilinx Technology**
The LTC 0485 series cameras incorporate Bilinx. Bilinx is a bidirectional communication capability embedded in the video signal of all Bosch Dinion cameras. With Bilinx technicians can check status, change camera settings and even update firmware from virtually anywhere along the video cable. Bilinx reduces service and installation time, provides for more accurate set-up and adjustment, and improves overall performance. In addition, Bilinx uses the standard video cable to transmit alarm and status messages, providing superior performance without additional installation steps.

**Video Motion Detection**
The built-in video motion detector allows you to select up to four fully programmable areas with individual thresholds. The global scene change detector

minimizes false alarms caused by sudden lighting condition changes, such as switching on or off the indoor or security lighting. When motion is detected alarms may be displayed in the video signal, the output relay can be closed in addition to alarm message transmission on Bilinx.

**Auto Black**
The automatic black level feature, enhances contrast by removing veiling glare from the picture or when contrast is reduced by fog or mist.

**Default Shutter**
When viewing moving objects a fast shutter speed is required. When using a fast shutter speed the lens opening or gain control needs to be increased to maintain the video signal. The camera sensitivity is limited by the fast shutter speed. The default shutter setting of the LTC 0485 offers the best of all worlds, fast shutter speed as long as there is sufficient light, however as the light level falls, when other adjustments have been exhausted, the shutter reverts to the standard setting maintaining the cameras excellent sensitivity.

**Back Light Compensation (BLC)**
Offering a fully programmable BLC area of interest, and a variable BLC level, the camera can be easily set up for even the most challenging entrance applications.

**Lens Wizard**
The LTC 0485 Series automatically detects the type of lens installed. The Lens Wizard will focus the lens at the maximum lens opening, to ensure that focus is maintained throughout the entire 24–hour day/night cycle. No special tools or filters are required.

**Programmable Modes**
The camera supports 3 independent operating modes. The 3 modes are preprogrammed for typical applications, but are fully programmable for individual situations. Switching between modes is easy via Bilinx or the external alarm input.

**NightSense**
The LTC 0485 cameras feature NightSense. With NightSense the sensitivity is increased by 9 dB in monochrome mode. NighSense can be automatically activated in low light situations, or remotely using Bilinx.

**SensUp**
By increasing the integration time on the CCD up to 10 times, the effective sensitivity is dramatically enhanced, especially useful where there is no artificial lighting and you rely on the moon, stars and scattered radiation.

## Certifications and approvals

| Electro Magnetic Compatibility | |
|---|---|
| Emission | EN55022 class B, FCC class B part 15 |
| Immunity | EN50130-4 Alarm Systems, Part 4 |
| Vibration | Camera with .5 kg (1.1 lbs) lens according to IEC60068-2-27 |

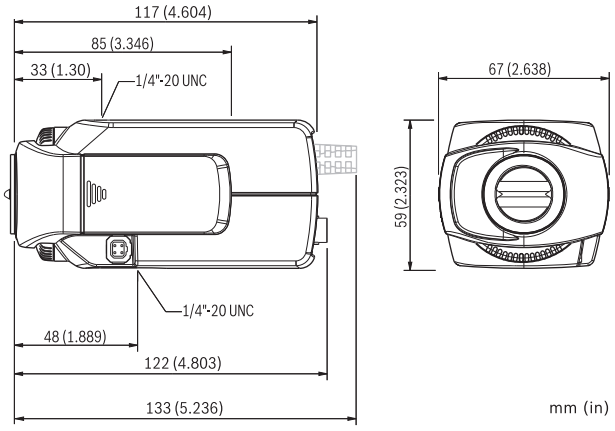
**Safety**

LTC 0485/11 and LTC 0485/51: EN60065

LTC 0485/21 and LTC 0485/61: UL6500, cUL CAN/CSA E60065-00

| Region | Certification | |
|---|---|---|
| Europe | CE | Declaration of Conformity |
| USA | FCC | Declaration of Conformity |

## Installation/configuration notes




Dimensions in mm (inches)

## Parts included

| Quantity | Components |
|---|---|
| 1 | LTC 0485 Series Dinion$^{XF}$ Color Camera |
| 1 | Spare male 4–pin lens connector |
| | Lens not included |

## Technical specifications

**Electrical**

| Model No. | Voltage Range | |
|---|---|---|
| LTC 0485/11 | 12–28 VAC | 45–65 Hz |
| | 11–36 VDC | |
| LTC 0485/21 | 12–28 VAC | 45–65 Hz |
| | 11–36 VDC | |
| LTC 0485/51 | 85–265 VAC | 45–65 Hz |
| LTC 0485/61 | 85–265 VAC | 45–65 Hz |
| Power Consumption | 4 W | |
| Imager | Interline transfer CCD, 1/3-inch format | |

| Active Pixels | |
|---|---|
| PAL | 752 H x 582 V |
| NTSC | 768 H x 492 V |

| Sensitivity (3200 k) | |
|---|---|
| Sensitivity (Full Video)[1)] | 2.4 lux (0.24 fc) |
| Sensitivity 50 IRE[1)] | 0.59 lux / 0.24 lux (NightSense) (0.059 fc / 0.024 fc (NightSense)) |
| Minimum Illumination[1)] | 0.24 lux / 0.10 lux (NightSense) (0.024 fc / 0.01 fc (NightSense)) |
| Minimum Illumination with Sens Up | 0.024 lux / 0.010 lux (NightSense) (0.0024 fc / 0.0010 fc (NightSense)) |
| Horizontal Resolution | 540 TVL |
| Signal-to-Noise-Ratio | > 50 dB |
| Video Output | 1 Vpp, 75 Ohm |
| Y/C Output | Y: 1 Vpp / C: 0.3 Vpp |
| Synchronization | Internal, line lock, HV-lock and genlock (Burst lock) selectable |
| Electronic Shutter | Auto (1/60 (1/50) to 1/500000), fixed, flickerless, default |
| Sensitivity up | Off, automatic continuous up to 10x |
| Auto Black | On, off selectable |
| Range | 32x dynamic range enhancement |
| Dynamic Noise Reduction | Auto, off selectable |
| Contour | Sharpness enhancement level selectable |
| BLC | Off, area and level selectable |
| Gain | Auto (maximum level selectable to 28 dB) or fixed level selectable |
| White Balance | ATW (2500–10000 K), AWB hold, manual WB selectable |
| VMD | 4 area, sensitivity selectable |
| Alarm Output | VMD or Bilinx |
| Alarm Input (TTL) | Profile switching, +5 V nominal, +40 VDC max. |
| Alarm Output Relay | Max. 30 VAC or +40 VDC, max. 0.5 A continuous, 10 VA |
| External SynchronalInput | 75 Ohm or High Impedance selectable |
| Cable Compensation | Up to 1000 m (3000 ft) coax without external amplifiers (automatic set-up in combination with coaxial communication) |
| Camera ID | 16 character editable string, position selectable |
| Lens Types | Manual, DC- and Video-iris auto-detect with override DC-iris drive: max. 50 mA continuous Video-iris: 11.5 ± 0.5 VDC, max. 50 mA continuous |
| Remote Control | Bi-directional coaxial communication |

1) F1.2, 89% reflection, SensUp Off

## Mechanical

| | |
|---|---|
| Dimensions (H x W x L) | 59 x 67 x 122 mm (2.28 x 2.6 x 4.8 in.) without lens |
| Weight | 450 g (0.99 lbs) without lens |
| Tripod Mount | Bottom (isolated) and top 1/4-in. 20 UNC |
| Lens Mount | Cand CS |
| Controls | OSD with softkey operation |

## Environmental

| | |
|---|---|
| Operating Temperature | -20 °C to +50 °C(-4 °F to +122 °F) |
| Storage Temperature | -25 °C to +70 °C(-13 °F to +158 °F) |
| Operating Humidity | 20% to 93% Relative humidity |
| Storage Humidity | Up to 98% Relative humidity |

## Ordering information

**LTC 0485/11 DinionXF Color Camera**
1/3-inch, high performance, 540 TVL, PAL, DSP, 12 – 28 VAC/11 – 36 VDC, 50 Hz
Order number **LTC0485/11**

**LTC 0485/21 DinionXF Color Camera**
1/3-inch, high performance, 540 TVL, NTSC, DSP, 12 – 28 VAC/11 – 36VDC, 60 Hz
Order number **LTC0485/21**

**LTC 0485/51 DinionXF Color Camera**
1/3-inch, high performance, 540 TVL, PAL, DSP, 85 – 268 VAC, 50 Hz
Order number **LTC0485/51**

**LTC 0485/61 DinionXFColor Camera**
1/3-inch, high performance, 540 TVL, NTSC, DSP, 85 – 265 VAC, 60 Hz
Order number **LTC0485/61**

### Accessories

**LTC 3364/21 Varifocal Lens IR corrected**
1/3-inch, 2.8 – 6 mm, DC-iris, CS-mount F1.4-200, 4-pin
Order number **LTC3364/21**

**LTC 3364/31 Varifocal Lens**
1/3-inch, 3.5 – 8 mm, DC-iris, CS-mount F/1.4-200, 4-pin
Order number **LTC3364/31**

**LTC 3384/21 Zoom Lens**
1/3-inch, 6 – 60 mm, DC-iris, CS-mount F1.4-360, 4-pin
Order number **LTC3384/21**

**TC120PS Power Supply Unit**
Order number **TC120PS**

**TC220PS Power Supply Unit**
Order number **TC220PS**

**TC220PSX-24 Power Supply Unit**
Order number **TC220PSX-24**

**TC1334 Power Supply Unit**
Order number **TC1334**

**Software Options**

**VP-CFGSFT Configuration Software**
for cameras using Bilinx, includes VP-USB Adaptor
Order number **VP-CFGSFT**

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